UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/315,973	05/21/1999	SHASHANK MERCHANT	50100-783	7187

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EXAMINER
LY, ANH VU H

ART UNIT	PAPER NUMBER
2662	

DATE MAILED: 10/21/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 07-01)

	Application No.	Applicant(s)
Office Action Summary	09/315,973	MERCHANT ET AL.
	Examiner	Art Unit
	Anh-Vu H Ly	2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *31 July 2002* .

2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-18* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-6 and 14-18* is/are rejected.

7) ☒ Claim(s) *7-13* is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) ☒ The proposed drawing correction filed on *31 July 2002* is: a)☒ approved b)☐ disapproved by the Examiner.

    If approved, corrected drawings are required in reply to this Office action.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

        1.☐ Certified copies of the priority documents have been received.

        2.☐ Certified copies of the priority documents have been received in Application No. _____ .

        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

    a) ☐ The translation of the foreign language provisional application has been received.

15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: .

DETAILED ACTION

Response to Amendment

1.   This communication is in response to applicant's amendment filed on July 31,

2002. Claims 1-18 are pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 1-6 and 14-18 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Kerstein et al. (US Patent No, 6,058,112) in view of Murthy et al (US Patent No.

5,515,376). Hereinafter, referred to as Kerstein and Murthy.

With respect to claim 1, Kerstein discloses in Figure 1, a packet switched

network, which includes an integrated multi-port switch 12 that enables communication

of data packets between network stations (a plurality of ports for receiving and

transmitting data packets).

Kerstein discloses (col. 4, lines 10-12 and Figure 1) that the multiport switch 12

includes an internal decision making engine that selectively transmits data packets

received from one source to at least one destination station (a decision making engine

responsive to received data packets for directing the received data packets to the ports

selected for transmission of the received data packets).

Further, Kerstein discloses in Figure 3, a plurality of queuing devices such as 64s and 66s for queuing received and transmitted data packets at the corresponding ports (a plurality of queuing devices corresponding to the plurality of ports for queuing data blocks representing the data packets received by the corresponding ports).

Kerstein discloses (col. 5, lines 19-22) that the header of the received packet is forwarded to a decision making engine to determine which MAC ports will output the data packet (logic circuitry responsive to the plurality of queuing devices for processing the data blocks in accordance with a prescribed algorithm to determine destination information).

Kerstein discloses (col. 7, lines 7-15) that the ERCI 42 outputs the forwarding decision to switch subsystem 70. The switch subsystem 70 fetches the data packet identified in the port vector from the external memory 34 via the external memory interface 32, and supplies the retrieved data packet to the appropriate transmit FIFO 66 of the identified ports (a forwarding circuit responsive to the logic circuitry for identifying at least one transmit port).

Kerstein does not disclose a traffic capture mechanism for enabling one port to output data transferred via selected ports of plurality of ports.

Murthy discloses (col. 2, lines 30-34) monitoring of any or all network segments (multiple selected ports) on a multi-port bridge or router may be carried out from a network segment on one port, referred to as a monitoring port (a traffic capture mechanism for enabling one port to output data transferred via multiple other selected ports of plurality of ports).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include the feature of monitoring data from any or all network segments through a monitoring port in Kerstein's switching network, as suggested by Murthy, to monitor data packets, collect related information for network analysis and to reduce the complexity of the switching system, wherein, multiple testing devices are needed for multiple input/output ports.

With respect to claim 2, Kerstein discloses a packet switched network to enable communication of data packets between network stations.

Kerstein does not disclose one port is a sniffer port for connecting to a probe for monitoring data traffic.

Murthy discloses (col. 2, lines 40-44) that to carry out monitoring, a network monitor may be connected to the monitoring port (sniffer port) and will thus be able to view traffic just as it were connected directly to a monitored port (one port is a sniffer port for connecting a probe for monitoring data traffic).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include the feature of connecting a network monitor to the monitoring port to view traffic of the monitored port in Kerstein's switching network, as suggested by Murthy, to monitor data packets and collect related information for network analysis.

With respect to claim 3, limitation recited in claim 3 is addressed in the rejection of claims 1 and 2.

With respect to claim 4, Kerstein discloses a packet switched network to enable communication of data packets between network stations.

Kerstein does not disclose a sniffer port configuration circuit for selecting a sniffer port among plurality of ports.

Murthy discloses in Fig. 1, port 4 is chosen as the monitoring port among a plurality of ports of the bridge (a sniffer port configuration circuit for selecting the sniffer port among plurality of ports).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the feature of selecting a monitoring port among plurality of ports in Kerstein's switching network, as suggested by Murthy, to monitor data packets and collect related information for network analysis.

With respect to claim 5, the limitation recited in claim 5 is addressed in the rejection of claim 1. Wherein, Murthy discloses monitoring of any or all network segments (multiple selected ports) on a multi-port bridge or router may be carried out from a network segment on one port, referred to as a monitoring port (a sniffed port configuration circuit for selecting multiple sniffed ports among a plurality of ports).

With respect to claim 6, Kerstein discloses a packet switched network to enable communication of data packets between network stations.

Kerstein does not disclose sniffer port configuration circuit is configured to enable and disable monitoring of data traffic on multiple sniffed ports.

Murthy discloses (col. 18, lines 30-35 and Fig. 1) that port monitoring is controlled from the supervisory access terminal 12. The network manager may identify monitored ports 3 and monitoring ports 10. When port monitoring is enabled, packets associated with the monitored ports 3 will be forwarded to monitoring ports 10 (configured to enable and disable monitoring of data traffic on multiple sniffed ports).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to include the feature of controlling the process of port monitoring in Kerstein's switching network, as suggested by Murthy, to monitor data packets and collect related information for network analysis.

With respect to claim 14, Kerstein discloses (col. 4, lines 35-41) that data packets from a network station are received by the corresponding MAC port and stored in the corresponding receive FIFO 64 (placing data blocks representing data packets in a plurality of data queues to be processed by the decision making engine).

Kerstein discloses (col. 5, lines 19-22) that the header of the received packet is forwarded to a decision making engine to determine which MAC ports will output the data packet (processing the data queues by logic circuitry in accordance with a prescribed algorithm to determine destination information).

Kerstein discloses (col. 7, lines 7-15) that the ERCI 42 outputs the forwarding decision to switch subsystem 70. The switch subsystem 70 fetches the data packet identified in the port vector from the external memory 34 and supplies the retrieved data packet to the appropriate transmit FIFO 66 of the identified ports (identifying at least one port for transmitting data packets based on the destination information).

Kerstein does not disclose selecting multipled sniffed ports among the plurality of ports for monitoring the data packets transferred via the sniffed ports and selecting a sniffer port among the plurality of ports to provide output of the data packets transferred via the sniffed ports.

Murthy discloses (col. 2, lines 30-34) monitoring of any or all network segments (multiple selected ports) on a multi-port bridge or router may be carried out from a network segment on one port, referred to as a monitoring port (selecting multipled sniffed ports among the plurality of ports for monitoring the data packets transferred via the sniffed ports and selecting a sniffer port among the plurality of ports to provide output of the data packets transferred via the sniffed ports).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include the feature of monitoring data from any or all network segments through a monitoring port in Kerstein's switching network, as suggested by Murthy, to monitor data packets, collect related information for network analysis and to reduce the complexity of the switching system, wherein, multiple testing devices are needed for multiple input/output ports.

With respect to claim 15, limitation recited in claim 15 is addressed in the rejection of claim 14.

With respect to claim 16, limitation recited in claim 16 is addressed in the rejection of claim 14.

With respect to claim 17, limitation recited in claim 17 is addressed in the rejection of claim 14.

With respect to claim 18, limitation recited in claim 18 is addressed in the rejection of claim 14.

Allowable Subject Matter

3.   Claims 7-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

4.   Applicant's arguments with respect to claims 1-18 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

5.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Liang (US Patent No. 5,319,644) discloses a method and apparatus for associating stations to a port on a network concentrator.

Crayford et al (US Patent No. 6,151,316) discloses a method and apparatus for synthesizing management packets for transmission between a network switch and a host controller.

Kerstein (US Patent No. 6,157,623) discloses a method and apparatus for selectively outputting data using a MAC layer interface or a PCI bus interface.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh-Vu H Ly whose telephone number is 703-306-5675. The examiner can normally be reached on Monday-Friday 7:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on 703-305-4744. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9314 for regular communications and 703-872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the receptionist whose telephone number is 703-305-

4750.

av
October 17, 2002

HASSAN KIZOU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600